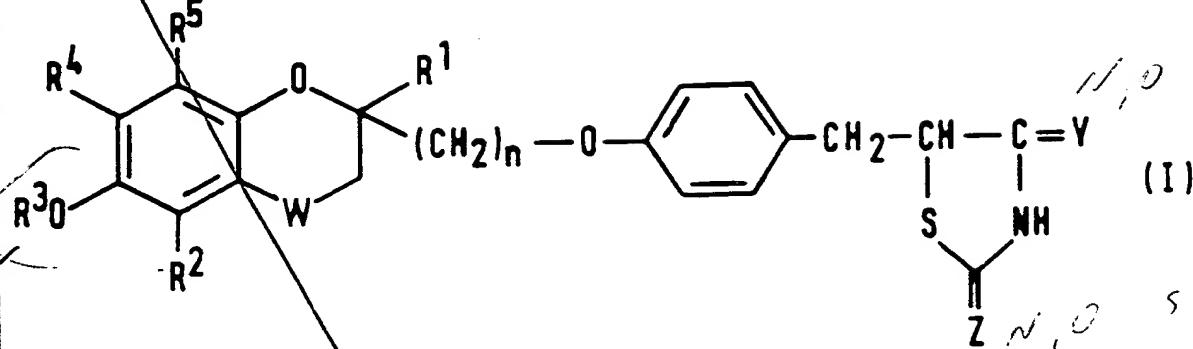


CLAIMS

Compounds of formula (I):



[in which:

R^1 and R^2 are the same or different and each represents hydrogen or a C_1-C_5 alkyl group;

R^3 represents hydrogen, a C_1-C_6 aliphatic acyl group, an alicyclic acyl group, an aromatic acyl group, a heterocyclic acyl group, an araliphatic acyl group, a $(C_1-C_6$ alkoxy)carbonyl group or an aralkyloxycarbonyl group;

R^4 and R^5 are the same or different and each represents hydrogen, a C_1-C_5 alkyl group or a C_1-C_5 alkoxy group, or R^4 and R^5 together represent a C_1-C_4 alkylendioxy group;

n is 1, 2 or 3;

W represents the $-CH_2-$, $>CO$ or $>CH-OR^6$ group (in

172 R]

which R^6 represents any one of the atoms or groups defined for R^3 and may be the same as or different from R^3); and
 Y and Z are the same or different and each represents the oxygen atom or the imino group] and pharmaceutically acceptable salts thereof.

2. Compounds as claimed in Claim 1, in which: R^3 represents hydrogen, a C_1-C_6 aliphatic acyl group, an aromatic acyl group or a heterocyclic acyl group.

3. Compounds as claimed in Claim 1, in which: Y represents an oxygen atom; R^1 and R^2 are the same or different and each represents hydrogen or a C_1-C_5 alkyl group; R^3 represents hydrogen, a C_1-C_6 aliphatic acyl group, ^{one of said groups} an aromatic acyl group or a pyridinecarbonyl group; and R^4 and R^5 are the same or different and each represents hydrogen, a C_1-C_5 alkyl group or a C_1 or C_2 alkoxy group.

4. Compounds as claimed in Claim 3, in which: R^1 , R^2 , R^4 and R^5 are the same or different and each represents hydrogen or a C_1-C_5 alkyl group; n is 1 or 2; and W represents the $-CH_2-$ or $>CO$ group.

3 23 22

5. Compounds as claimed in Claim 4, in which R^3 represents a hydrogen atom, a C_1-C_5 aliphatic acyl group, or the

benzoyl or nicotinoyl group.

6. Compounds as claimed in ~~Claim 5~~, in which: R¹ and R⁴ are the same or different and each represents a C₁-C₅ alkyl group; R² and R⁵ are the same or different and each represents the hydrogen atom or the methyl group; and R³ represents hydrogen or a C₁-C₄ aliphatic acyl group.

7. Compounds as claimed in ~~Claim 1~~, in which: W represents the -CH₂- or >CO group; Y and Z both represent oxygen atoms; n is 1 or 2; R¹ and R⁴ are the same or different and each represents a C₁-C₄ alkyl group; R² and R⁵ are the same or different and each represents the hydrogen atom or the methyl group; and R³ represents hydrogen or a C₁-C₄ aliphatic acyl group.

8. Compounds as claimed in ~~Claim 7~~, in which n is 1.

9. Compounds as claimed in ~~Claim 7~~ or ~~Claim 8~~, in which W represents the -CH₂- group.

10. Compounds as claimed in ~~Claim 1~~, selected from the group consisting of:

5-[4-(6-hydroxy-2,5,7,8-tetramethylchroman-2-yl-

177

methoxy)benzyl]thiazolidine-2,4-dione

5-[4-(2-ethyl-6-hydroxy-5,7,8-trimethylchroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(6-hydroxy-5,7,8-trimethylchroman-2-ylmethoxy)-benzyl]thiazolidine-2,4-dione

5-[4-[2-(6-hydroxy-2,5,7,8-tetramethylchroman-2-yl)ethoxy]benzyl]thiazolidine-2,4-dione

5-[4-[2-(7-t-butyl-6-hydroxy-2-methylchroman-2-yl)ethoxy]benzyl]thiazolidine-2,4-dione

5-[4-[2-(6-hydroxy-7,8-dimethoxy-2,5-dimethylchroman-2-yl)ethoxy]benzyl]thiazolidine-2,4-dione

5-[4-(6-hydroxy-2,7-dimethylchroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(6-hydroxy-2-isobutyl-5,7,8-trimethylchroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(6-hydroxy-2,5,7,8-tetramethylchroman-2-ylmethoxy)benzyl]-2-iminothiazolidin-4-one

5-[4-(7-t-butyl-6-hydroxy-2-methylchroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

benzyl]-2-iminothiazolidin-4-one

5-[4-(2-ethyl-6-hydroxy-5,7,8-trimethylchroman-2-ylmethoxy)benzyl]-2-iminothiazolidin-4-one

5-[4-(6-hydroxy-5,7,8-trimethylchroman-2-ylmethoxy)-benzyl]-2-iminothiazolidin-4-one

5-[4-(6-hydroxy-2,7-dimethylchroman-2-ylmethoxy)-benzyl]-2-iminothiazolidin-4-one

5-[4-(6-acetoxy-2,5,7,8-tetramethylchroman-2-ylmethoxy)-benzyl]thiazolidine-2,4-dione

5-[4-(6-benzyloxy-2,5,7,8-tetramethylchroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(6-butyryloxy-2,5,7,8-tetramethylchroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(2,5,7,8-tetramethyl-6-nicotinoyloxychroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(6-hydroxy-2,5,7,8-tetramethyl-4-oxochroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(7-t-butyl-6-hydroxy-2-methyl-4-oxochroman-2-yl-

methoxy)benzyl]thiazolidine-2,4-dione

5-[4-(6-hydroxy-2-isobutyl-5,7,8-trimethyl-4-oxochroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(6-hydroxy-2,5,7,8-tetramethyl-4-oxochroman-2-ylmethoxy)benzyl]-2-iminothiazolidin-4-one

5-[4-(7-t-butyl-6-hydroxy-2-methyl-4-oxochroman-2-ylmethoxy)benzyl]-2-iminothiazolidin-4-one

5-[4-(6-hydroxy-2-isobutyl-5,7,8-trimethyl-4-oxochroman-2-ylmethoxy)benzyl]-2-iminothiazolidin-4-one

5-[4-(6-acetoxy-2,5,7,8-tetramethyl-4-oxochroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(6-acetoxy-5,7,8-trimethylchroman-2-ylmethoxy)benzyl]-2-iminothiazolidin-4-one

5-[4-[2-(6-acetoxy-7-t-butyl-2-methylchroman-2-ylmethoxy)benzyl]-2-iminothiazolidin-4-one

5-[4-[2-(6-acetoxy-7,8-dimethoxy-2,5-dimethylchroman-2-ylmethoxy)benzyl]-2-iminothiazolidin-4-one

and pharmaceutically acceptable salts thereof.

11. Compounds as claimed in Claim 10, selected from the group consisting of:

5-[4-(6-hydroxy-2,5,7,8-tetramethylchroman-2-ylmethoxy)-benzyl]thiazolidine-2,4-dione

5-[4-(2-ethyl-6-hydroxy-5,7,8-trimethylchroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-[2-(7-t-butyl-6-hydroxy-2-methylchroman-2-yl)-ethoxy]benzyl]thiazolidine-2,4-dione

5-[4-(6-hydroxy-2-isobutyl-5,7,8-trimethylchroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(6-acetoxy-2,5,7,8-tetramethylchroman-2-ylmethoxy)-benzyl]thiazolidine-2,4-dione

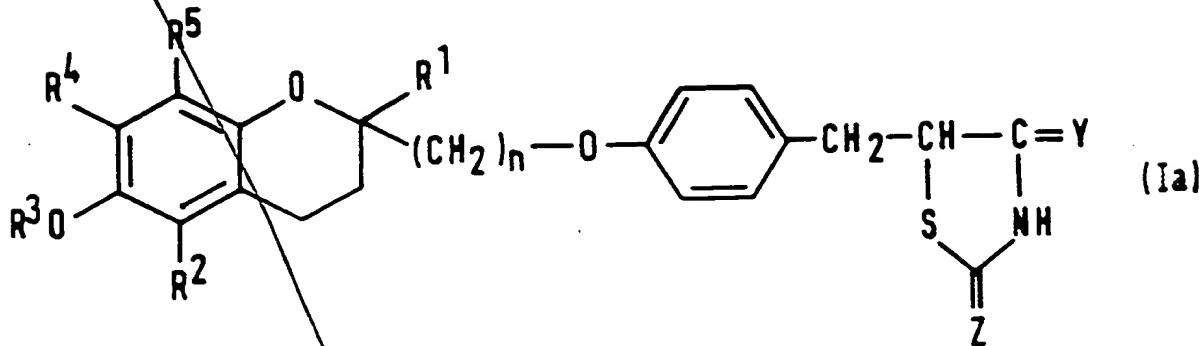
5-[4-(6-butyryloxy-2,5,7,8-tetramethylchroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(6-hydroxy-2,5,7,8-tetramethyl-4-oxochroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(7-t-butyl-6-hydroxy-2-methyl-4-oxochroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

and pharmaceutically acceptable salts thereof.

12. Compounds of formula (Ia):



[in which:

R^1 and R^2 are the same or different and each represents hydrogen or a C_1-C_5 alkyl group;

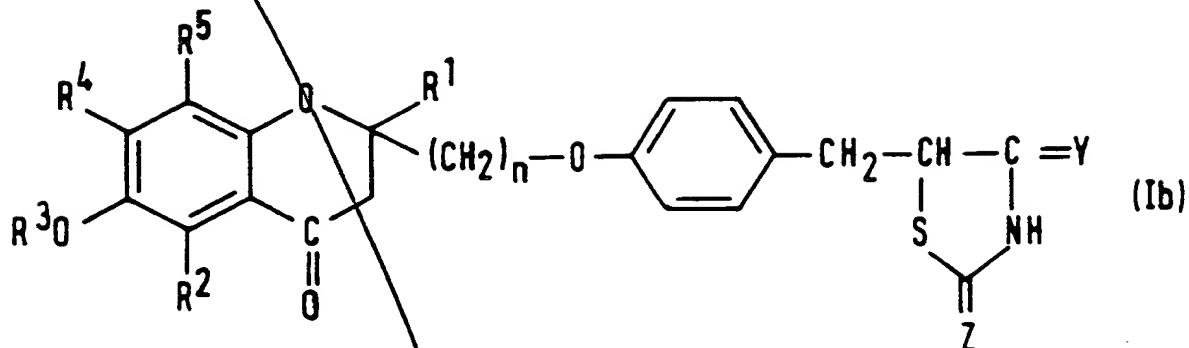
R^3 represents hydrogen, a C_1-C_6 aliphatic acyl group, an alicyclic acyl group, an aromatic acyl group, a heterocyclic acyl group, an araliphatic acyl group, a $(C_1-C_6$ alkoxy)carbonyl group or an aralkyloxy-carbonyl group;

R^4 and R^5 are the same or different and each represents hydrogen, a C_1-C_5 alkyl group or a C_1-C_5 alkoxy group, or R^4 and R^5 together represent a C_1-C_4 alkylendioxy group;

n is 1, 2 or 3; and

Y and Z are the same or different and each represents the oxygen atom or the imino group] and pharmaceutically acceptable salts thereof.

13. Compounds of formula (Ib):



full a ✓
[in which:

R^1 and R^2 are the same or different and each represents hydrogen or a C_1-C_5 alkyl group;

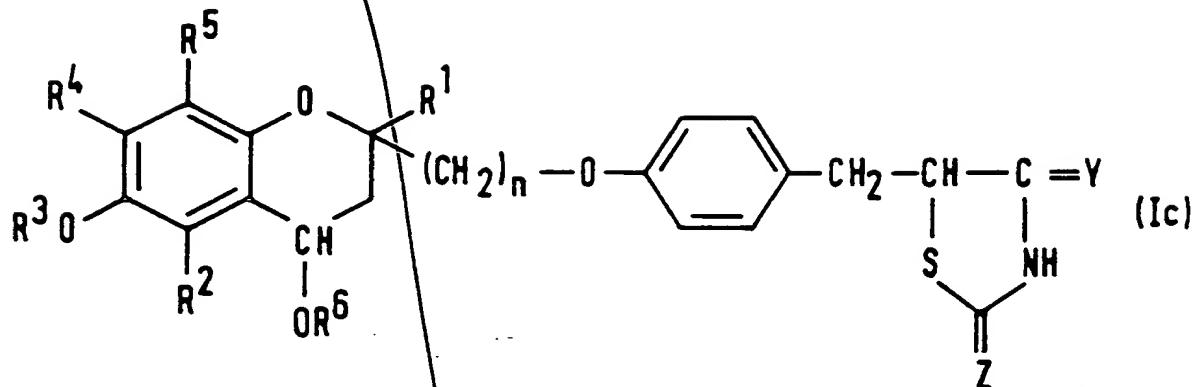
R^3 represents hydrogen, a C_1-C_6 aliphatic acyl group, an alicyclic acyl group, an aromatic acyl group, a heterocyclic acyl group, an araliphatic acyl group, a $(C_1-C_6$ alkoxy)carbonyl group or an aralkyloxycarbonyl group;

R^4 and R^5 are the same or different and each represents hydrogen, a C_1-C_5 alkyl group or a C_1-C_5 alkoxy group, or R^4 and R^5 together represent a C_1-C_4 alkylendioxy group;

n is 1, 2 or 3; and

Y and Z are the same or different and each represents the oxygen atom or the imino group] and pharmaceutically acceptable salts thereof.

14. Compounds of formula (Ic):



[in which:

R^1 and R^2 are the same or different and each represents hydrogen or a C_1 - C_5 alkyl group;

R^3 represents hydrogen, a C_1 - C_6 aliphatic acyl group, an alicyclic acyl group, an aromatic acyl group, a heterocyclic acyl group, an araliphatic acyl group, a (C_1 - C_6 alkoxy)carbonyl group or an aralkyloxycarbonyl group;

R^4 and R^5 are the same or different and each represents hydrogen, a C_1 - C_5 alkyl group or a C_1 - C_5 alkoxy group, or R^4 and R^5 together represent a C_1 - C_4 alkylendioxy group;

n is 1, 2 or 3;

R^6 represents any one of the atoms or groups defined for R^3 and may be the same as or different from R^3 ; and

Y and Z are the same or different and each represents

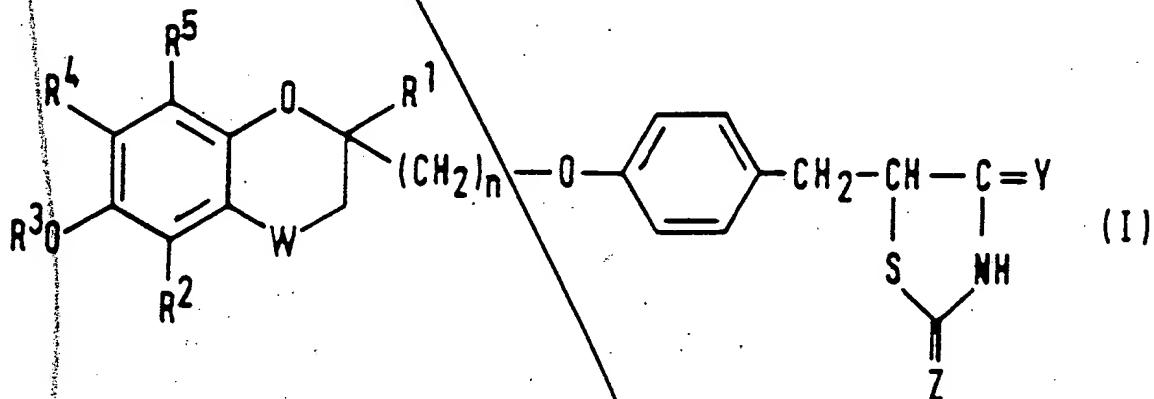
Yours
[the oxygen atom or the imino group]

and pharmaceutically acceptable salts thereof.

22 15. Compounds as claimed in *Claim 1* or *Claim 12*, which are salts with cations.

23 16. Compounds as claimed in *Claim 1* or *Claim 12*, in the form of the sodium salt.

17 A pharmaceutical composition for the treatment of hyperlipaemia or hyperglycaemia, which comprises at least one active compound in admixture with a pharmaceutically acceptable carrier or diluent, wherein said active compound is selected from compounds of formula (I):



[in which:

180

~~R¹ and R² are the same or different and each represents hydrogen or a C₁-C₅ alkyl group;~~

~~R³ represents hydrogen, a C₁-C₆ aliphatic acyl group, an alicyclic acyl group, an aromatic acyl group, a heterocyclic acyl group, an araliphatic acyl group, a (C₁-C₆ alkoxy)carbonyl group or an aralkyloxycarbonyl group;~~

~~R⁴ and R⁵ are the same or different and each represents hydrogen, a C₁-C₅ alkyl group or a C₁-C₅ alkoxy group, or R⁴ and R⁵ together represent a C₁-C₄ alkylenedioxy group;~~

~~n is 1, 2 or 3;~~

~~W represents the -CH₂- or >CO or >CH-OR⁶ group (in which R⁶ represents any one of the atoms or groups defined for R³ and may be the same as or different from R³); and~~

~~Y and Z are the same or different and each represents the oxygen atom or the imino group]~~
and pharmaceutically acceptable salts thereof.

18. Compositions as claimed in Claim 17, in which: R³ represents hydrogen, a C₁-C₆ aliphatic acyl group, an aromatic acyl group or a heterocyclic acyl group.

26 19. Compositions as claimed in ~~Claim 17~~²⁴, in which: Y represents an oxygen atom; R¹ and R² are the same or different and each represents hydrogen or a C₁-C₅

alkyl group; R^3 represents hydrogen, a C_1-C_6 aliphatic acyl group, ^{one of said} ~~an~~ ^{groups} aromatic acyl group or a pyridinecarbonyl group; and R^4 and R^5 are the same or different and each represents hydrogen, a C_1-C_5 alkyl group or a C_1 or C_2 alkoxy group. ¹⁴

27 ²⁶ 30. Compositions as claimed in ²⁶ claim ²⁶ 30, in which: R^1 , R^2 , R^4 and R^5 are the same or different and each represents hydrogen or a C_1-C_5 alkyl group; n is 1 or 2; and W represents the $-CH_2-$ or $>CO$ group. ¹⁴ B 13 22

28 ²⁷ 31. Compositions as claimed in ²⁷ claim ²⁷ 31, in which R^3 represents a hydrogen atom, a C_1-C_5 aliphatic acyl group, or the benzoyl or nicotinoyl group. ¹⁴

29 ²⁸ 32. Compositions as claimed in ²⁸ claim ²⁸ 32, in which: R^1 and R^4 are the same or different and each represents a C_1-C_5 alkyl group; R^2 and R^5 are the same or different and each represents the hydrogen atom or the methyl group; and R^3 represents hydrogen or a C_1-C_4 aliphatic acyl group. ¹⁴

30 ²⁴ 33. Compositions as claimed in ²⁴ claim ²⁴ 33, in which: W represents the $-CH_2-$ or $>CO$ group; Y and Z both represent oxygen atoms; n is 1 or 2; R^1 and R^4 are the same or different and each represents a C_1-C_4 alkyl group; R^2 and R^5 are the same or different and

192

each represents the hydrogen atom or the methyl group;
and R³ represents hydrogen or a C₁-C₄ aliphatic
acyl group.

✓ 31 34. Compositions as claimed in ~~Claim 33~~³⁶, in which n is
1.

32 35. Compositions as claimed in ~~Claim 33~~³⁶ or ~~Claim 34~~¹⁷, in
which W represents the -CH₂- group.

33 36. Compositions as claimed in ~~Claim 37~~²⁴, wherein said
active compound is selected from the group consisting of:

1 5-[4-(6-hydroxy-2,5,7,8-tetramethylchroman-2-yl-
methoxy)benzyl]thiazolidine-2,4-dione

2 5-[4-(2-ethyl-6-hydroxy-5,7,8-trimethylchroman-2-
ylmethoxy)benzyl]thiazolidine-2,4-dione

3 5-[4-(6-hydroxy-5,7,8-trimethylchroman-2-ylmethoxy)-
benzyl]thiazolidine-2,4-dione

4 5-[4-[2-(6-hydroxy-2,5,7,8-tetramethylchroman-2-
yl)ethoxy]benzyl]thiazolidine-2,4-dione

5 5-[4-[2-(7-t-butyl-6-hydroxy-2-methylchroman-2-
yl)ethoxy]benzyl]thiazolidine-2,4-dione

193

5-[4-[2-(6-hydroxy-7,8-dimethoxy-2,5-dimethylchroman-2-yl)ethoxy]benzyl]thiazolidine-2,4-dione

5-[4-(6-hydroxy-2,7-dimethylchroman-2-ylmethoxy)-benzyl]thiazolidine-2,4-dione

5-[4-(6-hydroxy-2-isobutyl-5,7,8-trimethylchroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(6-hydroxy-2,5,7,8-tetramethylchroman-2-ylmethoxy)benzyl]-2-iminothiazolidin-4-one

5-[4-(7-t-butyl-6-hydroxy-2-methylchroman-2-ylmethoxy)-benzyl]-2-iminothiazolidin-4-one

5-[4-(2-ethyl-6-hydroxy-5,7,8-trimethylchroman-2-ylmethoxy)benzyl]-2-iminothiazolidin-4-one

5-[4-(6-hydroxy-5,7,8-trimethylchroman-2-ylmethoxy)-benzyl]-2-iminothiazolidin-4-one

5-[4-(6-hydroxy-2,7-dimethylchroman-2-ylmethoxy)-benzyl]-2-iminothiazolidin-4-one

5-[4-(6-acetoxy-2,5,7,8-tetramethylchroman-2-ylmethoxy)-benzyl]thiazolidine-2,4-dione

5-[4-(6-benzoyloxy-2,5,7,8-tetramethylchroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(6-butyryloxy-2,5,7,8-tetramethylchroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(2,5,7,8-tetramethyl-6-nicotinoyloxychroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(6-hydroxy-2,5,7,8-tetramethyl-4-oxochroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(7-t-butyl-6-hydroxy-2-methyl-4-oxochroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(6-hydroxy-2-isobutyl-5,7,8-trimethyl-4-oxochroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(6-hydroxy-2,5,7,8-tetramethyl-4-oxochroman-2-ylmethoxy)benzyl]-2-iminothiazolidin-4-one

5-[4-(7-t-butyl-6-hydroxy-2-methyl-4-oxochroman-2-ylmethoxy)benzyl]-2-iminothiazolidin-4-one

5-[4-(6-hydroxy-2-isobutyl-5,7,8-trimethyl-4-oxochroman-2-ylmethoxy)benzyl]-2-iminothiazolidin-4-one

195

5-[4-(6-acetoxy-2,5,7,8-tetramethyl-4-oxochroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(6-acetoxy-5,7,8-trimethylchroman-2-ylmethoxy)benzyl]-2-iminothiazolidin-4-one

5-[4-[2-(6-acetoxy-7-t-butyl-2-methylchroman-2-yl)ethoxy]benzyl]-2-iminothiazolidin-4-one

5-[4-[2-(6-acetoxy-7,8-dimethoxy-2,5-dimethylchroman-2-yl)ethoxy]benzyl]-2-iminothiazolidin-4-one

and pharmaceutically acceptable salts thereof.

3427. Compositions as claimed in claim 24, wherein said active compound is selected from the group consisting of:

5-[4-(6-hydroxy-2,5,7,8-tetramethylchroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-(2-ethyl-6-hydroxy-5,7,8-trimethylchroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

5-[4-[2-(7-t-butyl-6-hydroxy-2-methylchroman-2-yl)ethoxy]benzyl]thiazolidine-2,4-dione

5-[4-(6-hydroxy-2-isobutyl-5,7,8-trimethylchroman-2-ylmethoxy)benzyl]thiazolidine-2,4-dione

194

2-ylmethoxy)benzyl]thiazolidine-2,4-dione

21 5-[4-(6-acetoxy-2,5,7,8-tetramethylchroman-2-ylmethoxy)-
benzyl]thiazolidine-2,4-dione

22 5-[4-(6-butyryloxy-2,5,7,8-tetramethylchroman-2-yl-
methoxy)benzyl]thiazolidine-2,4-dione

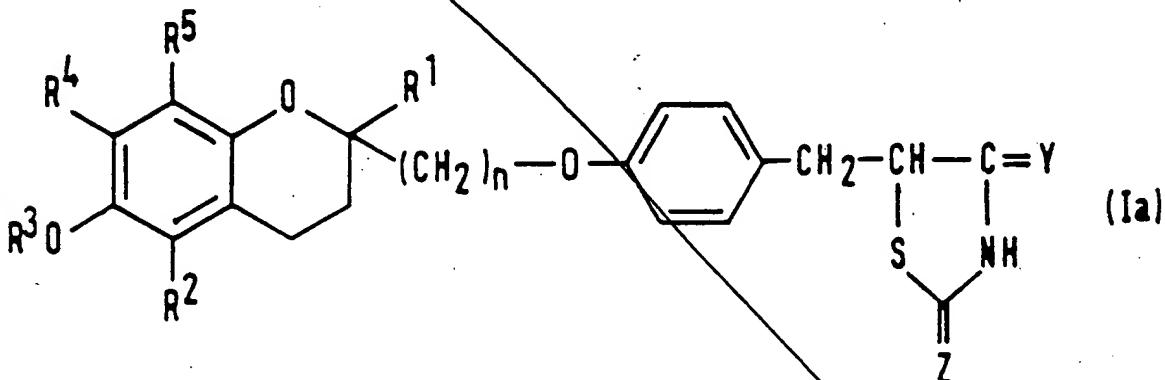
23 5-[4-(6-hydroxy-2,5,7,8-tetramethyl-4-oxochroman-2-yl-
methoxy)benzyl]thiazolidine-2,4-dione

24 5-[4-(7-t-butyl-6-hydroxy-2-methyl-4-oxochroman-2-yl-
methoxy)benzyl]thiazolidine-2,4-dione

25 and pharmaceutically acceptable salts thereof.

28. Compositions as claimed in Claim 17, in which said active compound is selected from compounds of formula

(Ia):



[in which:

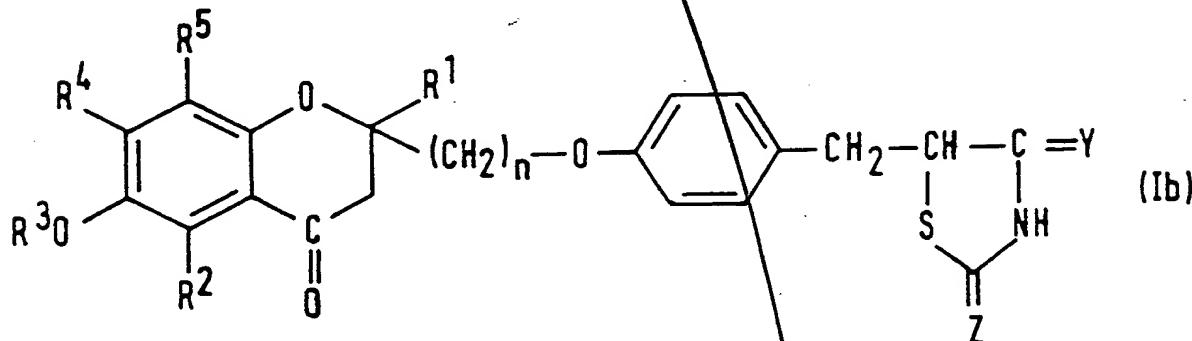
R¹ and R² are the same or different and each represents hydrogen or a C₁-C₅ alkyl group; R³ represents hydrogen, a C₁-C₆ aliphatic acyl group, an alicyclic acyl group, an aromatic acyl group, a heterocyclic acyl group, an araliphatic acyl group, a (C₁-C₆ alkoxy)carbonyl group or an aralkyloxycarbonyl group; R⁴ and R⁵ are the same or different and each represents hydrogen, a C₁-C₅ alkyl group or a C₁-C₅ alkoxy group, or R⁴ and R⁵ together represent a C₁-C₄ alkylendioxy group;

n is 1, 2 or 3;

and

Y and Z are the same or different and each represents the oxygen atom or the imino group] and pharmaceutically acceptable salts thereof.

29. Compositions as claimed in Claim 17, in which said active compound is selected from compounds of formula (Ib):



[in which:

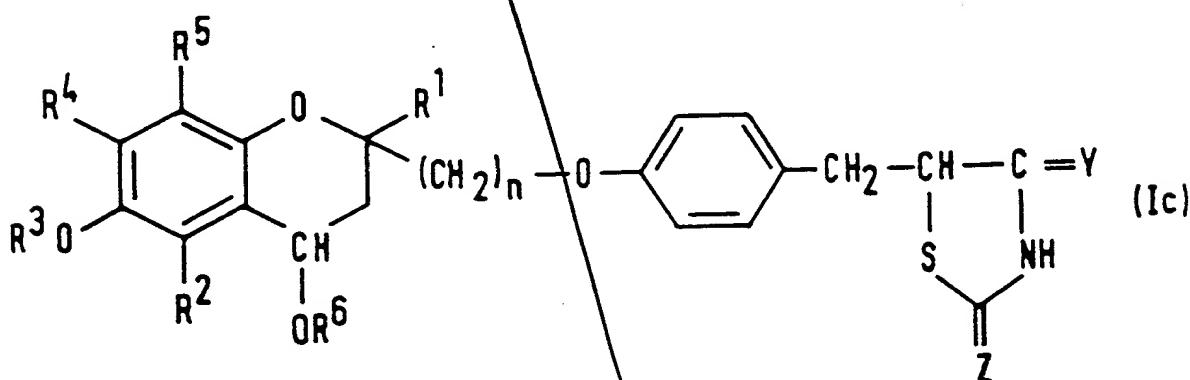
R^1 and R^2 are the same or different and each represents hydrogen or a C_1-C_5 alkyl group; R^3 represents hydrogen, a C_1-C_6 aliphatic acyl group, an alicyclic acyl group, an aromatic acyl group, a heterocyclic acyl group, an araliphatic acyl group, a (C_1-C_6 alkoxy)carbonyl group or an aralkyloxycarbonyl group; R^4 and R^5 are the same or different and each represents hydrogen, a C_1-C_5 alkyl group or a C_1-C_5 alkoxy group, or R^4 and R^5 together represent a C_1-C_4 alkylenedioxy group; n is 1, 2 or 3;

and

Y and Z are the same or different and each represents the oxygen atom or the imino group]

and pharmaceutically acceptable salts thereof.

30. Compositions as claimed in Claim 17, in which said active compound is selected from compounds of formula (Ic):



[in which:

R^1 and R^2 are the same or different and each represents hydrogen or a C_1 - C_5 alkyl group; R^3 represents hydrogen, a C_1 - C_6 aliphatic acyl group, an alicyclic acyl group, an aromatic acyl group, a heterocyclic acyl group, an araliphatic acyl group, a (C_1 - C_6 alkoxy)carbonyl group or an aralkyloxycarbonyl group; R^4 and R^5 are the same or different and each represents hydrogen, a C_1 - C_5 alkyl group or a C_1 - C_5 alkoxy group, or R^4 and R^5 together represent a C_1 - C_4 alkylendioxy group; n is 1, 2 or 3;

R^6 represents any one of the atoms or groups defined for R^3 and may be the same as or different from R^3 ; and

Y and Z are the same or different and each represents the oxygen atom or the imino group] and pharmaceutically acceptable salts thereof.

39. Compositions as claimed in ~~claim 17~~ or ~~claim 18~~²⁴, wherein said active compound is in the form of a salt with a cation. ³⁵

39. Compositions as claimed in ~~claim 17~~ or ~~claim 18~~²⁴, wherein said active compound is in the form of the sodium salt. ³⁵

ed
95

end
208